

City of Santa Monica

15x15

CLIMATE ACTION PLAN

15 Measures to Reduce Emissions 15% by 2015



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Santa Monica developed the 15x15 Climate Action Plan to reach the goal of reducing community greenhouse gas emissions 15 percent below 1990 levels by 2015.



EXECUTIVE SUMMARY

In 1994, the Sustainable Plan was created to protect natural resources, prevent harm to the natural environment, enhance human health, and improve the social and economic well-being of the community for current and future generations. In 2006, an updated Sustainable City Plan established a goal for reducing community greenhouse gas emissions 15 percent below 1990 levels by the year 2015. By 2007, Santa Monica had reduced its emissions to 7 percent below 1990 levels. Between 2007 and 2012, emissions decreased by another 7 percent, resulting in a total reduction of 14 percent below 1990 levels.

Although we have achieved a 14 percent reduction below 1990 levels in 2012, projected population and economic growth factors identified in the Land Use and Circulation Element (LUCE) suggest an overall increase in greenhouse gas emissions between 2012 and 2015. Because of this, an additional 3 percent reduction in greenhouse gas emissions needs to be achieved by the end of 2015 in order to meet the 15 percent reduction below 1990 levels. This 3 percent reduction represents almost 29,000 metric tons of carbon dioxide that will need to be reduced throughout the community. To reach this goal, Santa Monica developed the 15x15 Climate Action Plan. It is a ***short-term, action-oriented*** plan identifying fifteen measures that, when completed, will achieve our community greenhouse gas emission reduction goal.

15x15



Locals promote Solar Santa Monica on the 4th of July

INTRODUCTION

The world's leading scientists agree that human activity has already affected the Earth's climate by emitting harmful greenhouse gasses that are responsible for global warming. Evidence of this has manifested itself in extreme weather events occurring in greater frequency around the world. For Santa Monica, a changing climate could affect temperature, precipitation patterns, and sea level rise.

Addressing climate change and mitigating the impacts of global warming activity is the defining challenge of the 21st century and beyond. Almost three quarters of climate changing emissions originate from urban and suburban areas.[1] Because of this, cities are uniquely positioned to take a leading role in reducing emissions by delivering policies and programs that help residents and businesses minimize emissions, preparing the community for the effects of climate change, and reducing emissions from municipal operations.

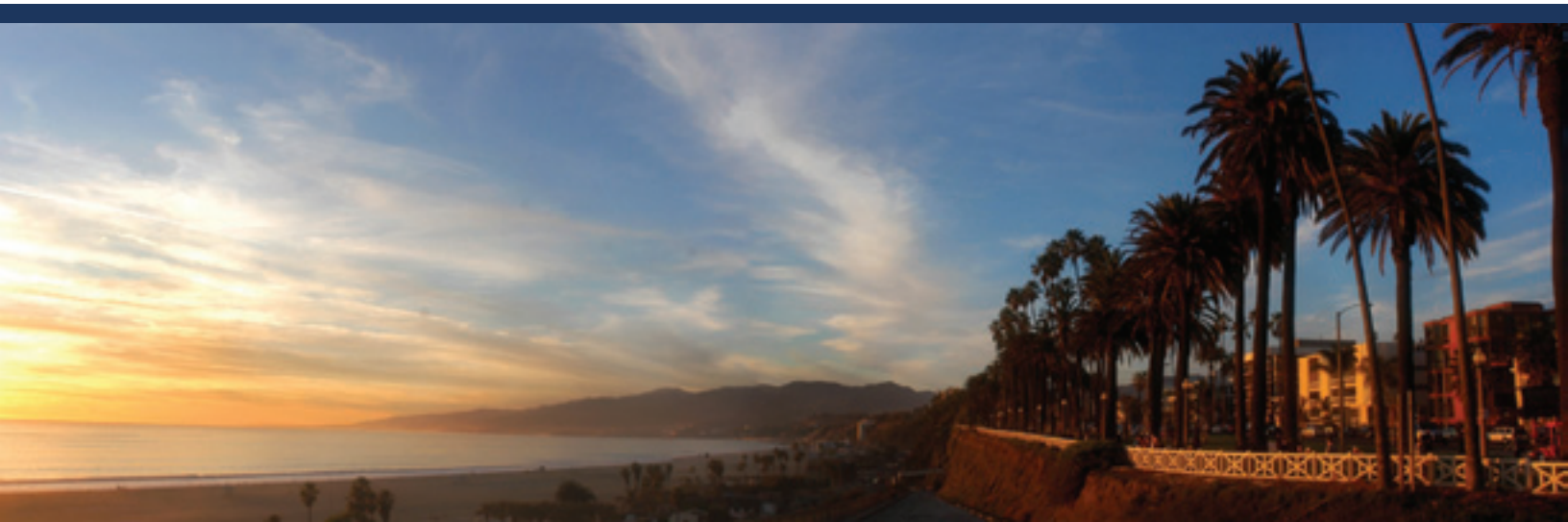
The challenge of climate change is not new, and addressing it has long been a priority for our community. For almost two decades, Santa Monica's Sustainable City Plan has guided programs and policies that enhance our resources, prevent harm to the natural environment and human health, and improve the social and economic well-being of the community for the sake of current and future generations. The Sustainable City Plan established the target of reducing community greenhouse gas emissions to 15 percent below 1990 levels by the end of 2015. In February of 2013, City Council took action to establish a longer term goal to reduce emissions by 30 percent below 1990 levels by 2030 and by 80 percent by 2050.

Emission-reducing programs and policies have been included in the Sustainable City Plan, Urban Forest Master Plan, Bike Action Plan and the Land Use and Circulation Element of the General Plan. They are also being integrated into the Water Self Sufficiency Plan and the Zero Waste Strategic Plan, which are currently in development. Santa Monica's 15x15 Climate Action Plan brings together the climate-related efforts of these plans, and others, to provide a broad vision of the City's endeavors to reduce its greenhouse gas emissions.

Fifteen measures have been identified that will help Santa Monica achieve its short-term climate goal. Each measure is to be achieved through a set of specific actions that can be completed by the end of 2015. Most of these actions will have quantifiable reductions in carbon emissions, while others are more difficult to measure. Many of these actions are intended to achieve broader sustainability objectives, like improving water self-sufficiency and community accessibility. When taken together, these actions create a Santa Monica that is healthy, vibrant and resilient.

Combatting and adapting to climate change presents opportunities as well as challenges. Taking action on climate change means creating local jobs in renewable energy, energy efficiency and transportation infrastructure. While Santa Monica alone cannot prevent global warming and mitigate global climate change, the City's leadership and responsible action can help engender a movement toward a sustainable future.

[1] *Source: UN Habitat. 2011. Cities and Climate Change: Global Report on Human Settlements*



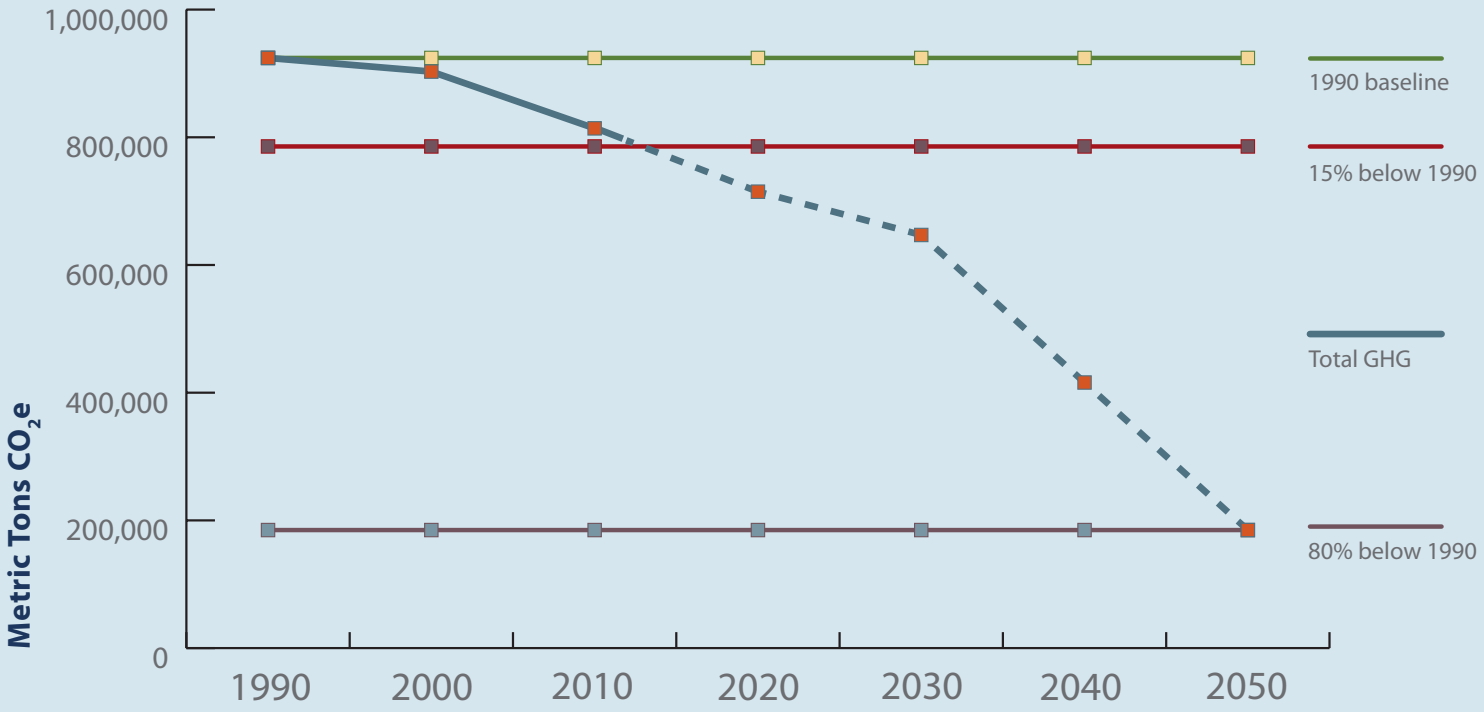


Santa Monica LEED-Certified Civic Center parking structure



Santa Monica's LEED Gold Annenberg Community Beach House

Santa Monica's Greenhouse Gas Emissions and Reduction Goals



SANTA MONICA'S GREENHOUSE GAS EMISSIONS INVENTORY

Santa Monica's community greenhouse gas emissions inventory captures emissions generated from energy consumption in homes and buildings, fossil fuels in transportation and methane emissions from waste disposal.

This sector-based method of inventorying carbon emissions is widely used by state and local governments throughout California and the United States. It does not account for the upstream emissions associated with the consumption of goods. The methodology follows the protocol and guidelines developed by ICLEI – Local Governments for Sustainability (ICLEI) and uses the software developed by ICLEI and the California Statewide Energy Efficiency Collaborative (SEEC).

Santa Monica's inventory includes emissions associated with:

- Electricity
- Natural gas
- Gasoline
- Diesel
- Solid waste disposal

Emissions not included in the inventory are:

- Santa Monica Airport aviation fuel
- Byproducts of industrial processes
- Emissions from goods and food manufactured and produced elsewhere
- Sequestration by the existing urban forest*
- Carbon Offsets*

*Although the impacts associated with urban forest sequestration and carbon offsets are not included in the community inventory, they are identified in the 15X15 Climate Action Plan as actions to undertake to achieve the 15 percent reduction target.

In 1990, Santa Monica emitted a total of 924,293 metric tons of carbon dioxide (MTCO2e). By 2007, Santa Monica had reduced emissions to 7 percent below the 1990 emissions baseline. By 2012, communitywide emissions had decreased by an additional 7 percent, amounting to a total reduction of 14 percent below the 1990 baseline.

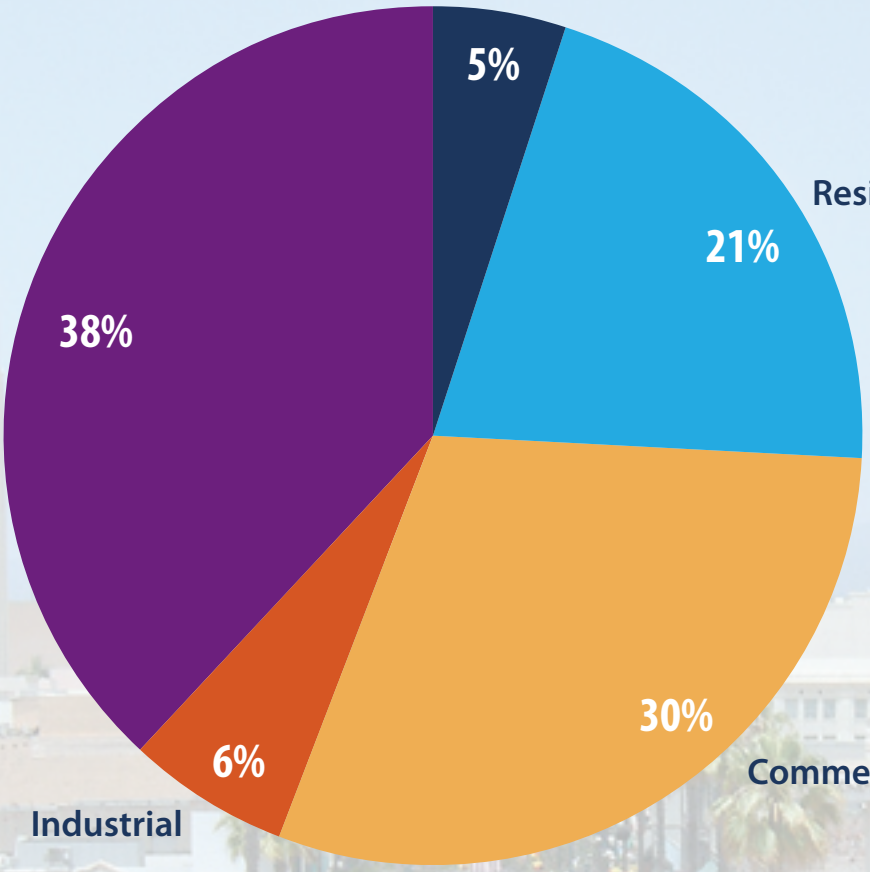
Although we have achieved a 14 percent reduction below 1990 levels in 2012, projected population and economic growth factors identified in the Land Use and Circulation Element (LUCE) suggest an overall increase in greenhouse gas emissions between 2012 and 2015. Because of this a 3 percent reduction in greenhouse gas emissions needs to be achieved by the end of 2015 to meet the 15 percent reduction below 1990 levels. This 3 percent reduction represents an additional 29,000 metric tons of carbon dioxide that will need to be reduced throughout the community.

Since 1990, per capita emissions in Santa Monica have dropped from 10.64 MTCO2e per resident to less than 8.8 metric tons, significantly lower than the state's 2009 per capita average of 13.1.[2] Although per capita emissions offer a valuable context for Santa Monica's emissions relative to other municipalities, the community greenhouse gas emissions target, community inventory and 15X15 Climate Action Plan reflect absolute emissions reductions.

Santa Monica's resident and working populations are expected to grow slightly by 2015 along with an improving economy. In a business-as-usual scenario in which no action is taken, greenhouse gas emissions associated with this growth are also expected to increase. In order to achieve the 15x15 Climate Action Plan goal, Santa Monica will need to take aggressive action to reduce its community-wide emissions by an additional 29,000 metric tons of carbon dioxide.

[2]*Source: California Air Resources Board California Greenhouse Gas Emissions Inventory: 2000-2009*

Community Sources of Emissions (2011)





SANTA MONICA'S 15X15 CLIMATE ACTION PLAN AND BEYOND

The Intergovernmental Panel on Climate Change estimates that to avoid potentially catastrophic climate change, greenhouse gas emissions generated globally must decline to 80 percent below 2000 levels by 2050. In an effort to move towards this goal, the 2006 update of the Sustainable City Plan established a short-term target of reducing emissions 15 percent below 1990 levels by 2015.

This 15X15 Climate Action Plan identifies the actions Santa Monica can take to achieve substantial emission reductions by 2015 and contribute to the long-term sustainability of the community. Key criteria in developing the actions were the magnitude of emissions reductions, the scale of economic and community benefits, and the ability of the City to facilitate their implementation. The reductions associated with some of the measures and actions will be directly represented in a traditional sector-based inventory while the emissions reductions associated with other activities come from climate calculators and software provided by ICLEI. Fifteen measures and corresponding actions have been identified to help the City meet and exceed its 2015 target.



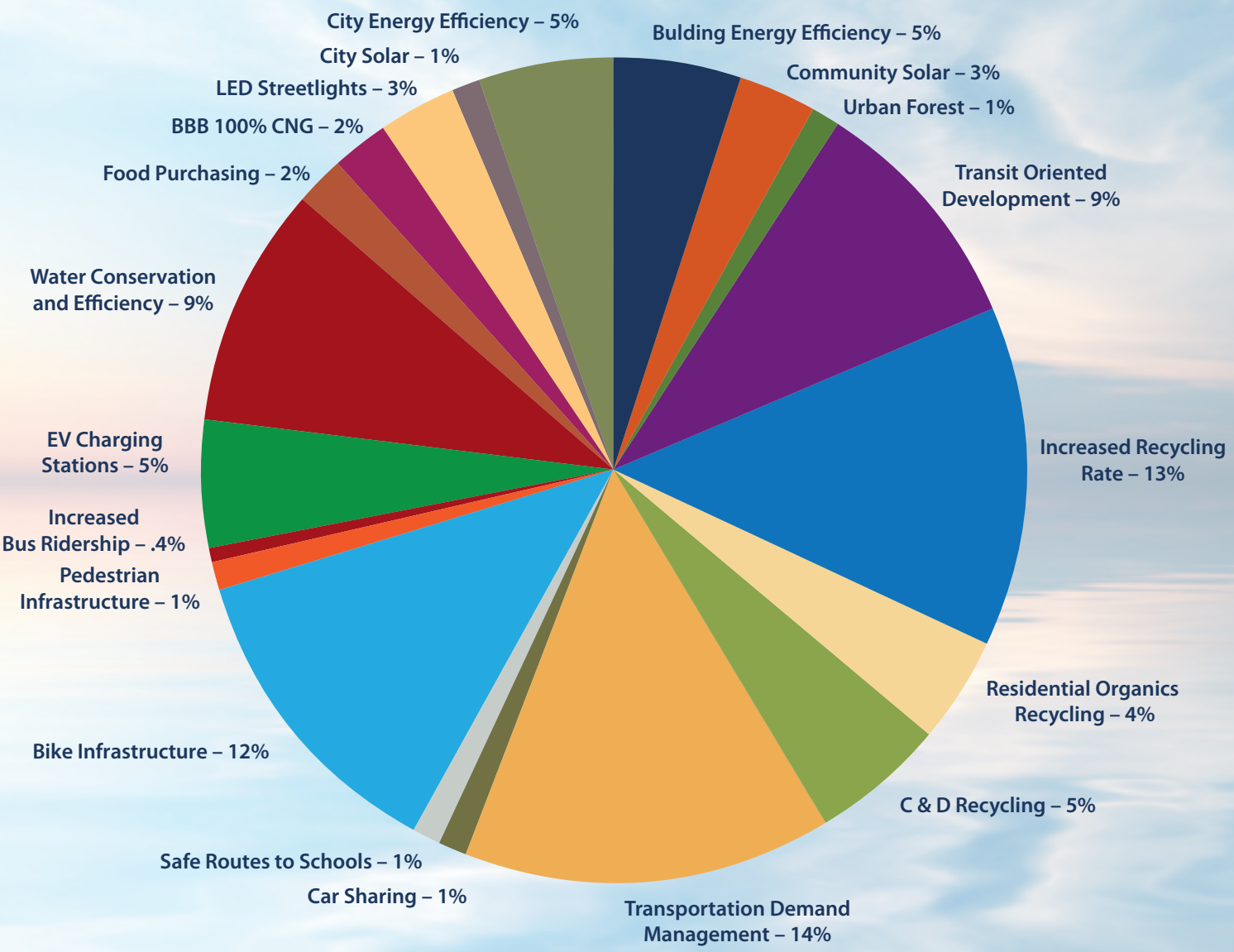
15x15

The *15 measures* and associated *actions* are grouped in the following categories:

- **Energy Use and Generation** 1 2 3
- **Waste Reduction and Recycling** 4
- **Transportation and Mobility** 5 6 7
- **Open Space and Land Use** 8 9
- **Water Conservation and Efficiency** 10
- **Local Food and Agriculture** 11 12
- **Municipal Operations** 13
- **Climate Mitigation and Adaptation** 14 15

Every three years the City will monitor community greenhouse gas emissions, evaluate progress, identify new measures and re-examine associated actions to ensure progress to meet the emission reduction goal is maintained.

Contribution of actions in the 15x15 Climate Action Plan to the total emissions reduction target



ENERGY USE AND GENERATION

Energy use in buildings is responsible for more than half of Santa Monica's greenhouse gas emissions. To reduce energy consumption and the emissions associated with the supply of energy, Santa Monica is taking a three-pronged approach that focuses on energy efficiency in existing buildings, construction of high performance new buildings and renewable energy generation.

Saving energy in the city's existing buildings is critical to reducing emissions. Statewide programs, like Energy Upgrade California, will facilitate residential participation in improving energy efficiency. For commercial buildings, establishing policies that require large buildings to disclose energy use will be the first step to encouraging conservation and efficiency by enhancing market transparency.

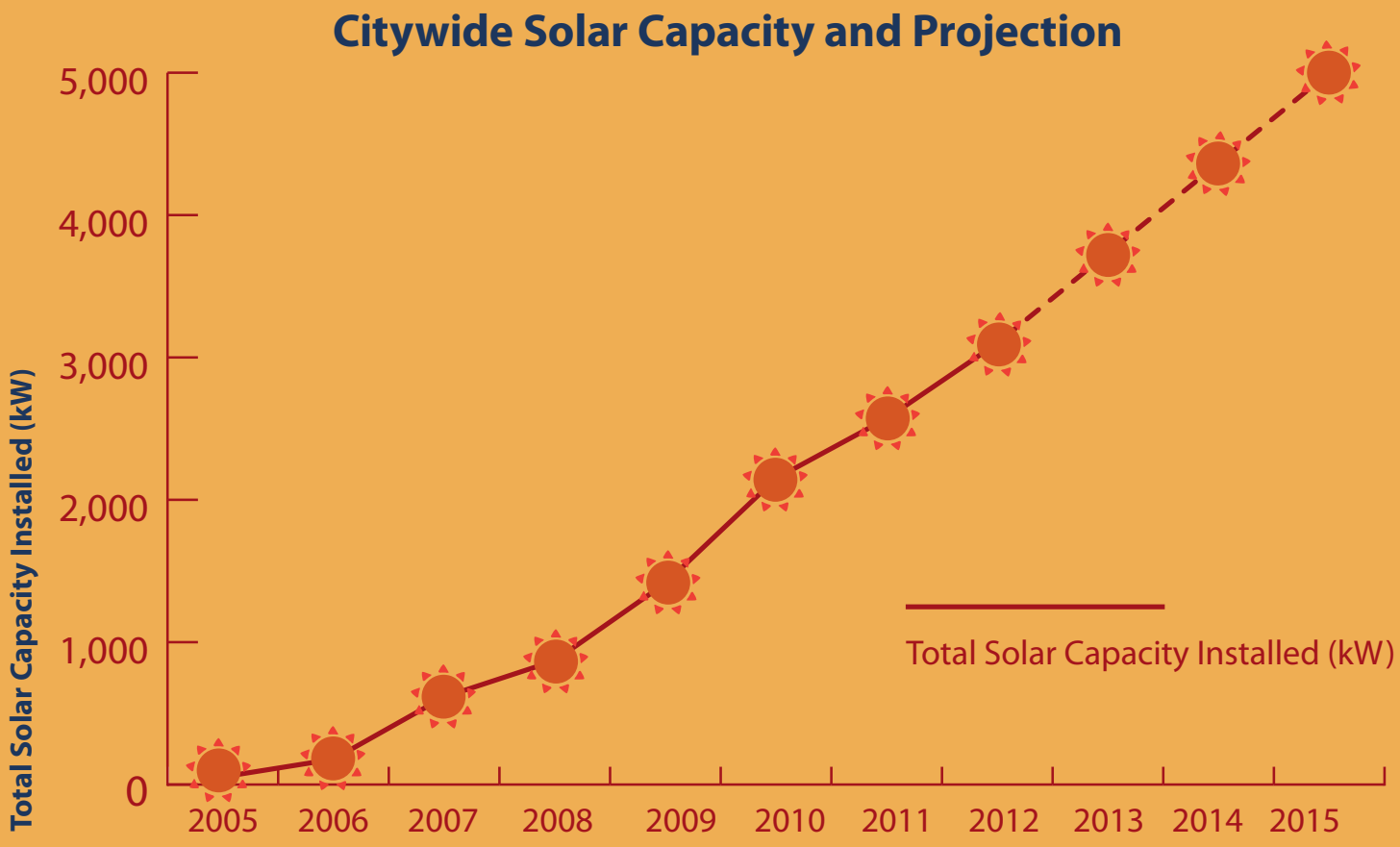
Santa Monica's Green Building Ordinance, which exceeds state performance requirements, requires new buildings, including the transit-oriented developments expected to be built around the new Expo Line Light Rail stations, to meet strict energy efficiency standards. Maintaining a high bar for energy performance will enable Santa Monica to reach the statewide Zero Net Energy goals for new residential buildings by 2020 and commercial buildings by 2030.

The Solar Santa Monica program will continue to promote energy efficiency and solar power in the community. As of 2012, over 400 grid connected solar projects in the city providing more than three megawatts of solar capacity have been installed. By 2020, 33% of utility-supplied electricity will come from renewable resources. While Santa Monica receives this benefit in the form of reduced emissions from cleaner energy, increasing locally-generated electricity is essential for energy independence, economic sustainability and emissions reductions.

Promoting solar power and energy efficiency lays the groundwork for the green economy of the future. Jobs in solar and energy efficiency are inherently local and cannot be outsourced. Money saved by reducing power bills is available to be spent on local goods and services, further enhancing the economic sustainability of our community.

Solar panels and LED lights help reduce emissions from Santa Monica's world famous pier.





ENERGY USE AND GENERATION

MEASURES **1** **2** **3**

1. Increase energy efficiency of new buildings to perform 10% better than 2013 Title 24 Standards

- ☐ Update and adopt a new Green Building Ordinance
- ☐ Require energy efficiency, onsite energy generation and electric vehicle charging infrastructure in large developments

2. Reduce energy use citywide in existing buildings by 1 million kWh annually

- ☐ Require buildings over 25,000 square feet to participate in energy benchmarking and disclosure program
- ☐ Launch a residential Property Assessed Clean Energy (PACE) program

3. Increase total citywide solar capacity by 500 kW annually

- ☐ Require onsite generation of renewable energy on all new commercial buildings
- ☐ Promote solar installation through the Solar Santa Monica program
- ☐ Work with utilities to allow community solar installations in Santa Monica

WASTE REDUCTION AND RECYCLING

Managing waste responsibly is the first step to improve the efficiency of our materials cycle, avoid exceeding the local landfill capacity and reduce the environmental damage associated with raw material extraction.

According to the US Environmental Protection Agency, the lifecycle of goods other than food accounts for one third of all carbon emissions.[3] From extraction and processing of raw materials to manufacturing, distribution, use and disposal, emissions occur at every stage of a product's life. Solid waste accounts for almost 5 percent of Santa Monica's total greenhouse gas emissions.

Santa Monica currently diverts more than 70 percent of its waste from the landfill, exceeding the target established in the Sustainable City Plan and the state's diversion rate of 65 percent.[4] To continue this success and further increase recycling and composting, Santa Monica is developing a Zero Waste Strategic Plan to reach a diversion goal of 90 percent.

Beyond waste management, a comprehensive approach that addresses the full lifecycle of goods and services will also result in emission reductions. Santa Monica has been a leader in eliminating the harmful waste associated with non-recyclable food service containers and single use bags and continues to advocate for product take-back programs and extended producer responsibility.

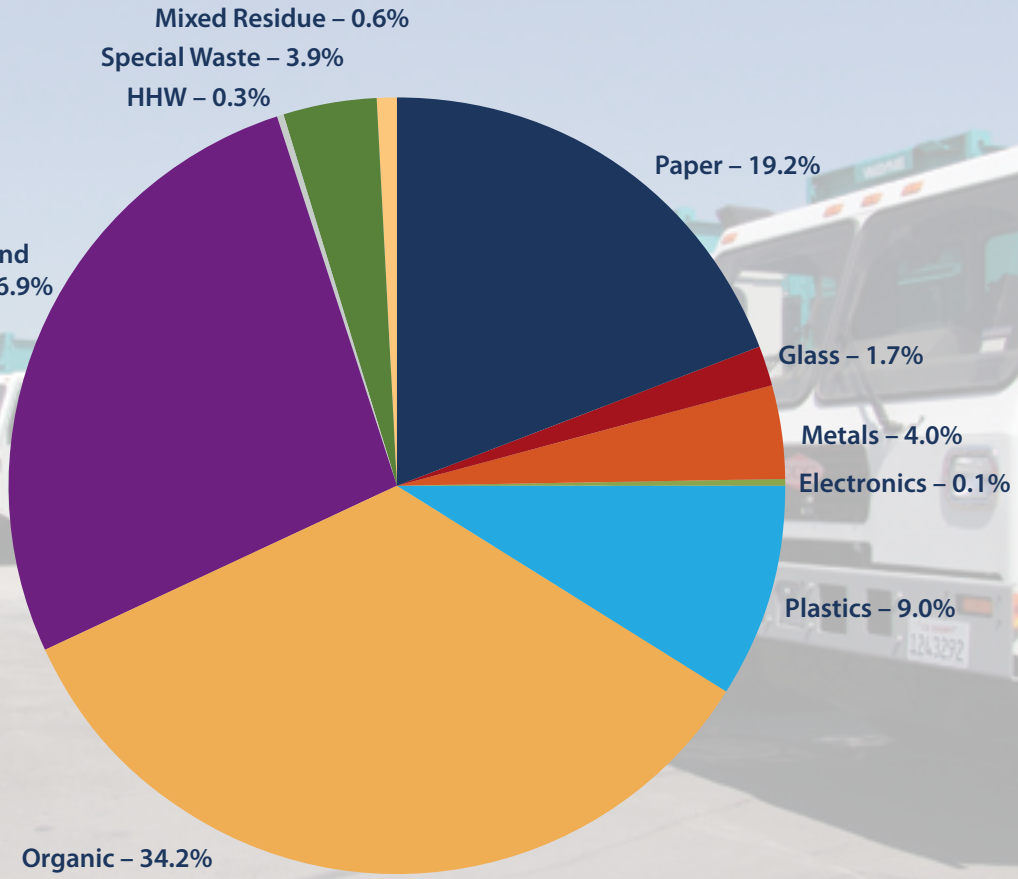
[3]Source: CalRecycle: California's 2011 Per Capita Disposal Rate

[4]Source: CalRecycle: California's Estimated Statewide Diversion Rates Since 1989



Santa Monica Waste Disposal and Recycling Truck

Santa Monica's Waste Stream



WASTE REDUCTION AND RECYCLING

MEASURE **4**

4. Divert 80% of waste from landfills

- ☐ Complete and implement the Zero Waste Strategic Plan
- ☐ Implement short and medium term programs to increase recycling rates
- ☐ Provide food waste collection for all single family residents, multi-family residents, restaurants and grocery stores
- ☐ Adopt a mandatory 75% diversion rate for construction and demolition projects

TRANSPORTATION AND MOBILITY

Approximately one-third of the Santa Monica's carbon emissions come from the transportation sector, 70 percent of which are attributed to personal driving. Congestion from seasonal and daily traffic places increased pressure on the city's transportation infrastructure, reduces mobility and increases emissions.

Getting people out of their single occupancy vehicles is key to reducing congestion and carbon emissions. Transportation demand management programs targeting large employers have been successful in increasing average vehicle ridership to 1.67 through carpool and vanpool, and will continue to be a primary strategy to reduce vehicle miles traveled in the city.

Enhancing infrastructure and programs to promote active transportation options such as biking, walking and taking the bus will also reduce emissions. By 2016, Santa Monica will complete the 5-year implementation plan cycle set out by the Bike Action Plan, adding almost 70 miles of bicycle lanes, routes and sharrows, including over 32 miles of new or upgraded facilities. The City has also initiated the creation of a Pedestrian Action Plan to improve pedestrian safety and upgrade its walking network in anticipation of Expo Light Rail operation beginning in 2016.

As personal vehicles will continue to be one of the primary modes of transportation, encouraging cleaner, alternative fuels will help reduce pollution and promote a growing market for low-emission vehicles. Santa Monica's network of electric vehicle charging stations includes more than 125 chargers, both private and publically accessible, municipal facilities, parking lots and private homes. Adding locations will encourage electric vehicle ownership and reduce tailpipe emissions.



Low-emission bus powered by natural gas



Electric vehicle charging station on the Santa Monica Pier



Santa Monica Bike Center provides secure bike parking, bike rentals, lockers and shower facilities in downtown



Big Blue Bus Transit Store

Anticipated Shift in Bikeway Mileage and Bicycle Commuting (BAP)

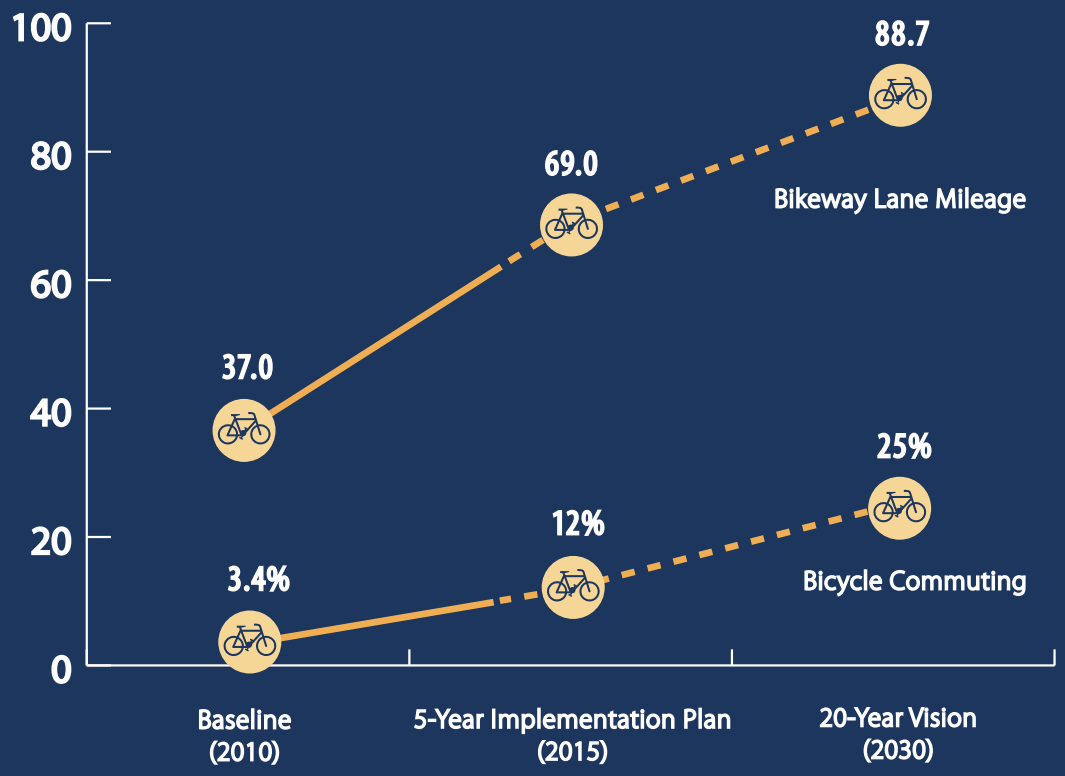


Chart source: Bike Action Plan

TRANSPORTATION AND MOBILITY

MEASURES **5** **6** **7**

5. Reduce daily vehicle miles traveled within the city by 13,000

- ☐ Expand transportation demand management programs to increase Average Vehicle Ridership to 1.7
- ☐ Pilot and implement a car-sharing network, including at least 10 dedicated on- or off-street parking spaces
- ☐ Increase ridership on Big Blue Bus by an additional 200,000 annual boardings

6. Increase biking and walking mode share to 15 percent

- ☐ Complete 5-year Implementation Plan of the Bike Action Plan by establishing a bike-sharing program and expanding bike network to 69 miles of bike lanes, sharrows and routes
- ☐ Complete and initiate implementation of the Pedestrian Action Plan
- ☐ Expand Safe Routes to Schools to include all Santa Monica schools

7. Expand public and private infrastructure to support electric vehicle technology

- ☐ Update the Santa Monica's Building and Zoning Codes and negotiate Development Agreements to facilitate charging station installations
- ☐ Provide outreach, education and incentives to increase residential infrastructure to 500 220-V chargers
- ☐ Add 200 publicly accessible electric vehicle chargers at locations communitywide

OPEN SPACE AND LAND USE

Land use decisions impact our daily lives by connecting us to where we go to learn, work and play, thus affecting greenhouse gas emissions. Santa Monica has a strong history of balancing the built environment and open space to satisfy the needs of a changing population, economic development and a healthy natural ecosystem. Careful planning can ensure that Santa Monica's citizens have easy access to essential services, nature and recreational opportunities that are distributed equitably throughout the community.

By limiting change to areas near transit corridors and focusing on growth on local-serving uses and housing, Santa Monica seeks to promote walkable and bikeable neighborhoods. Even with projected future growth, Santa Monica has committed to avoid an increase in evening rush hour trips in and out of the city. Current and future development will be served by transit, including the Expo Line Light Rail, Metro Rapid Bus, and Big Blue Bus service, in addition to active transportation options.

Santa Monica's urban forest provides valuable ecosystem services. Trees clean the air, retain storm water, save energy and enhance property value. Increasing the city's biomass and canopy coverage, in accordance with the Urban Forest Master Plan, as well as improving access to active and passive open space, will enhance the character and aesthetics of our neighborhoods while eliminating harmful carbon emissions.



The Value of Trees

Trees beautify neighborhoods, increase property value, reduce noise and air pollution, reduce urban runoff, create privacy and establish bird habitats. They also are a great economic investment! Santa Monica's urban forest, totaling over 34,500 public trees, is the City's only capital asset that actually increases in value as it ages and is valued at well over $159 million dollars!

To better understand the value of trees, Santa Monica is participating in a first-ever pilot study of the ability of the city's urban forest to sequester carbon. 1,000 newly planted trees will be monitored over the course of 100 years to measure the project's carbon benefit. These trees will contribute to an effort by the city's urban forest that has already stored almost 26,000 metric tons of carbon dioxide and retained roughly 21 million gallons of stormwater.



Artistic rendering of mixed-used development at Bergamot Station

OPEN SPACE AND LAND USE

MEASURES **8** **9**

8. Create vibrant mixed use villages that enhance neighborhoods

- ☐ Focus new development within a ¼ mile of transit-oriented activity centers, open space and grocery stores
- ☐ Adopt a Complete Green Streets policy that requires amenities for pedestrians and bicyclists, promotes walkable neighborhoods and green spaces and calms traffic

9. Expand the age, diversity and number of trees in the urban forest

- ☐ Plant at least 600 net new trees on public property and encourage planting trees on private property
- ☐ Complete the initial phase of the city's carbon offset pilot project, the first-ever under the California Air Resources Board's new urban forest protocol

WATER CONSERVATION AND EFFICIENCY

Water is a carbon-intensive resource that requires significant amounts of energy to pump, treat, distribute, heat for use and treat again as wastewater. In 2012 Santa Monica's Council adopted a goal to become 100 percent water self-sufficient by 2020, ending the use of imported water during periods of normal, regular demand.

Since 2010, Santa Monica has been able to supply over 50 percent of its water needs locally with the opening of local groundwater wells and the City's water treatment plant, reducing the need to import energy-intensive water from Northern California and the Colorado River. This achievement marks a milestone in the City's efforts to ensure a steady supply and achieve water self-sufficiency.

Reducing demand is critical, not only to conserve a precious resource, but also to avoid the energy associated with supply and management.

Per capita water use in Santa Monica has decreased by 14 gallons per person per day since 2010, resulting in almost 3,400 metric tons of carbon dioxide emissions avoided annually. As a part of its efforts to achieve water self-sufficiency by 2020, Santa Monica will continue to promote water conservation and efficiency for both indoor and outdoor uses.



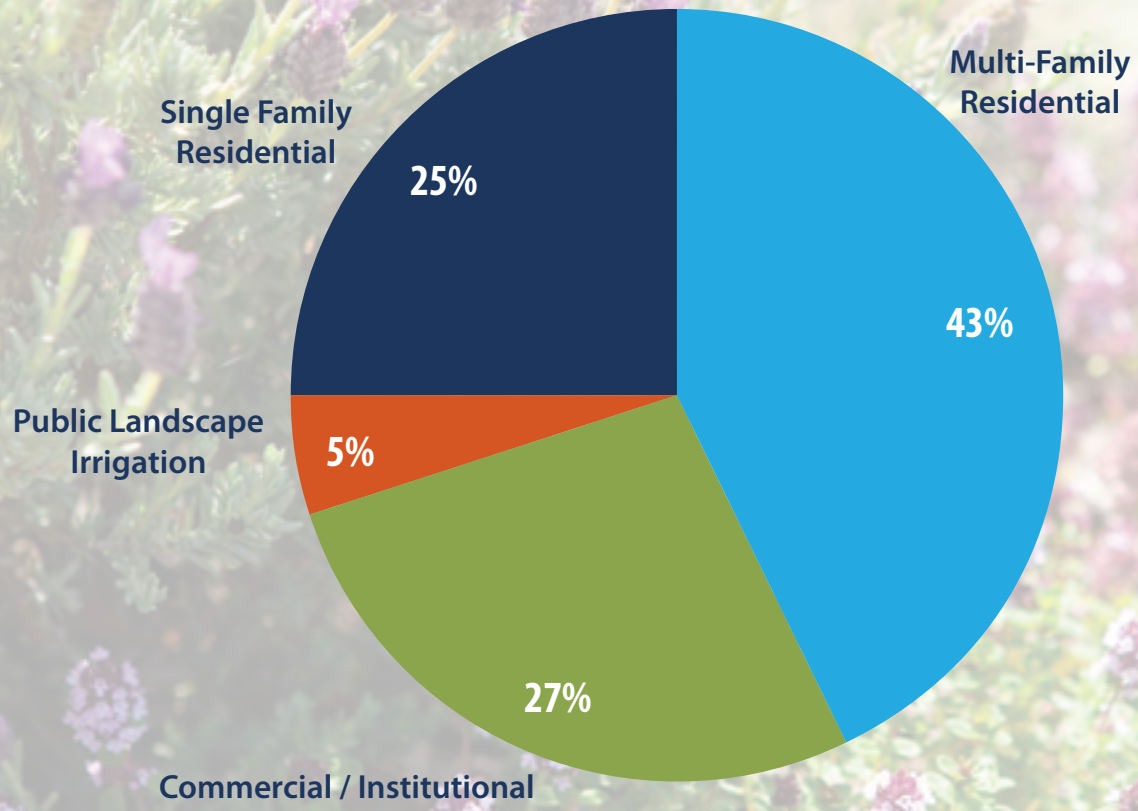
Energy Intensity of Water

kWh Per Million Gallons Produced	SM - Treated Water	Imported Water
Without Wastewater Treatment (outdoor)	4,419	11,111
With Wastewater Treatment (indoor)	5,530	13,022

(Imported water data from California Energy Commission)

*Represents the average amount of electricity used in supply & conveyance, treatment, distribution and wastewater treatment

Santa Monica Water Usage by Sector



WATER CONSERVATION AND EFFICIENCY

MEASURE **10**

10. Reduce water demand by 200,000 gallons per day

- ☐ Complete and implement the Water Self-Sufficiency Plan
- ☐ Implement education and outreach programs and provide rebates for water saving fixtures and water efficient landscaping to reduce water use by 2 gallons per person per day

LOCAL FOOD AND AGRICULTURE

Conventional food production is recognized as one of the nation's largest sources of environmental degradation. Globally, one-third of greenhouse gas emissions result from the food system, when accounting for importation, soil degradation and deforestation.[5] While not captured in a traditional sector-based greenhouse gas emissions inventory, choosing more sustainable and less-carbon intensive food yields significant individual and collective benefit.

How we spend our food dollars, as individuals, businesses, and as a city, can improve the quality of life in our community, and in the communities where our food is produced. Eating locally produced, fresh food, and choosing grains, fruits, and vegetables instead of meat, has the dual benefits of lowering greenhouse gas emissions associated with food production and improving health.

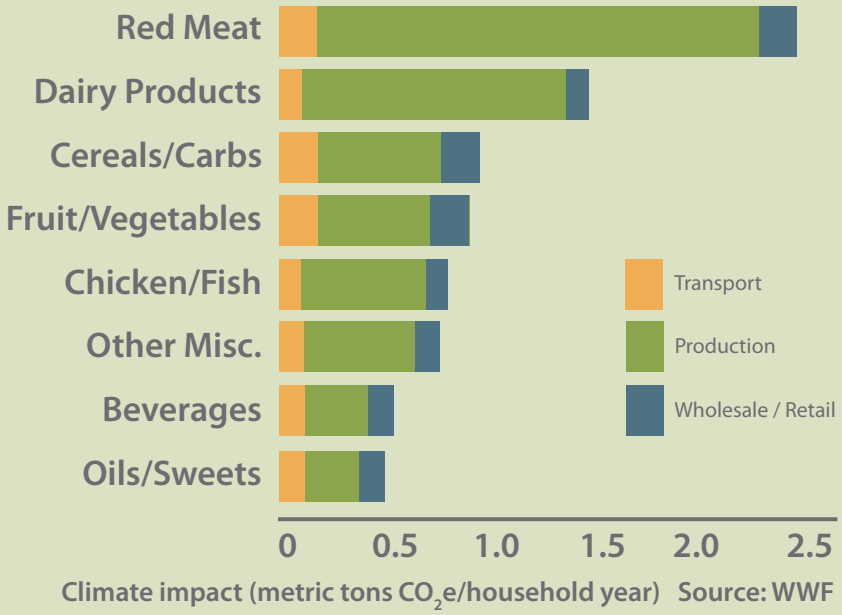
Santa Monica is committed to supporting sustainable, local, and organic food through its own purchasing, and by helping to make sustainable food more accessible to its residents. The City can reduce carbon emissions from food by promoting its four thriving Farmers Markets and limiting municipal purchasing of meat and dairy products.

[5]*Source: Consultative Group on International Agricultural Research. 2012. Recalibrating Food Production in the Developing World.*



Santa Monica was the first city to sign on to the Cool Foods Pledge, and had elevated food sustainability as a priority focus within the Sustainable City Plan.

Climate Impact of Food and Agriculture







In 2012, the Santa Monica Farmers' Markets celebrated their 30th anniversary. Annual sales continue to increase 2-5% sustainably at four thriving farmers' markets that provide access to fresh, locally grown produce to nearly 1,000,000 visitors annually. Consuming locally grown produce reduces energy usage and emissions associated with the storage, refrigeration and transportation of conventional produce.

LOCAL FOOD AND AGRICULTURE

MEASURES **11** **12**

11. Reduce consumption of carbon intensive foods

- ☐ Encourage community to reduce meat and dairy consumption citywide by promoting Meatless Mondays and the Cool Foods pledge
- ☐ Commit to reducing meat and dairy purchases by 15% and encourage large institutions to participate

12. Increase the production and consumption of local food

- ☐ Increase sales at city-operated farmers markets by 2% annually

MUNICIPAL OPERATIONS

Reducing emissions from its operations presents an opportunity for the City to lead the community and the country by example. The City's operations account for almost 7 percent of all carbon emissions in the community. Emissions from municipal operations consist of energy use in buildings and facilities, which include streetlights, traffic signals and water delivery systems, and fuel use by the vehicle fleet and Big Blue Bus.

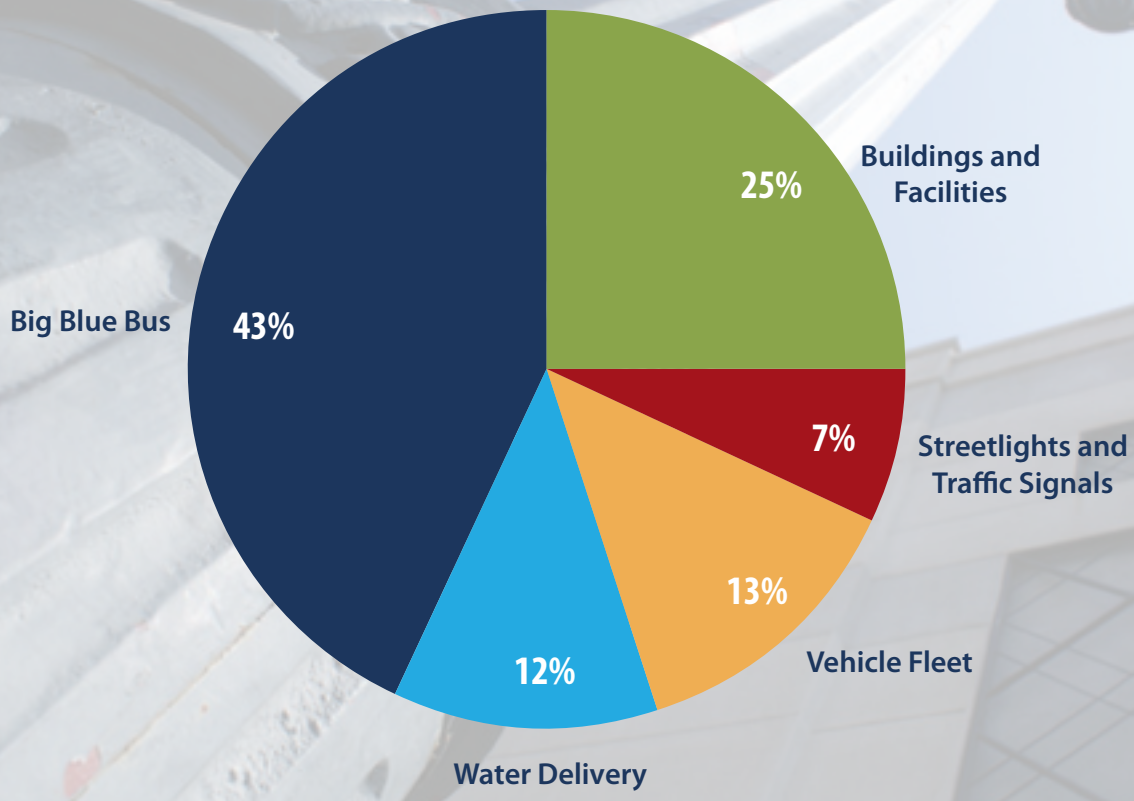
Consistent investments have been made in green infrastructure and sustainable operations such as LED streetlights, alternative fuel fleet and Big Blue Bus vehicles, solar energy and green power purchases have helped limit the City's emissions. Over 70 percent of Santa Monica's vehicle fleet, including the Big Blue Bus, Public Works vehicles and non-emergency police and fire vehicles, is alternatively fueled. Big Blue Bus, which accounts for close to half of the City's municipal emissions, will be run completely on natural gas by the end of 2013. The City's fleet continues to go green as new technology is adopted and older vehicles are replaced.

Buildings are the second largest source of the City's municipal emissions after Big Blue Bus. Santa Monica's Land Use and Circulation Element envisions achieving Leadership in Energy and Environmental Design (LEED) Gold for all of its newly constructed buildings. Energy efficiency retrofits and conservation will reduce energy use in existing facilities.

Santa Monica is working toward climate solutions with its municipal vehicle fleet.



Emission Sources from Municipal Operations



MUNICIPAL OPERATIONS

MEASURE **13**

13. Reduce municipal greenhouse gas emissions

- ☐ Reduce greenhouse gas emissions from municipal fleet fuel use
  - i. Convert the Big Blue Bus fleet to 100% natural gas
  - ii. Implement a car sharing program that will reduce the size of the City's vehicle fleet
- ☐ Save one million kWh from buildings and facilities annually through energy efficiency and conservation
  - i. Update and adopt a new energy efficiency plan for municipal facilities
  - ii. Construct all new municipal buildings to achieve LEED Gold level certification or higher
  - iii. Create a revolving fund program to finance energy efficiency retrofits
  - iv. Retrofit at 100% of streetlights using LED or induction technology
  - v. Implement a strategy to reduce energy from electronic equipment, like office printer reductions
- ☐ Increase use of solar technology on City facilities
  - i. Install solar thermal systems on the Santa Monica Swim Center and all city fire stations
  - ii. Install an additional 500 kW of solar photovoltaic capacity on City buildings

CLIMATE MITIGATION AND ADAPTATION

Scientific evidence indicates that even if we could halt greenhouse gas emissions today, the world will still experience a warming climate for decades to come. In recent years, California has seen increased average temperatures, more extreme hot days, fewer cold nights, longer growing seasons, less winter precipitation and both snowmelt and rainwater running off earlier in the year. These climate driven changes will affect resources critical to the health and prosperity of Santa Monica.

A ground-breaking study on the impacts of climate change specific to the Los Angeles region revealed that average temperatures in Santa Monica are expected to increase 3 to 4 degrees over the next 30 to 50 years in Santa Monica. The number of hot days experienced throughout the year is expected to increase as well. The study – produced by the University of California Los Angeles for the Los Angeles Regional Collaborative for Climate Action and Sustainability (LARC), of which Santa Monica is a member – will continue to analyze other potential impacts of climate change, including sea level rise, snowpack and precipitation patterns. As these scenarios become illuminated, Santa Monica must understand its current and future vulnerabilities and create a plan that will prepare the community for the new realities of a warming planet.

Additionally, the City will periodically monitor community greenhouse gas emissions, evaluate progress, identify new measures and re-examine associated actions to ensure significant reductions in greenhouse gas emissions reductions are being achieved in accordance with the targets established in the 15x15 Climate Action Plan.





Temperatures are expected to increase 3 to 4 degrees on average over the next 30 to 50 years in Santa Monica.

Source: LARC

CLIMATE MITIGATION AND ADAPTATION

MEASURES **14** **15**

14. Monitor greenhouse gas emissions

- ☐ Conduct a greenhouse gas emissions inventory every three years
- ☐ Develop and implement a data management protocol for greenhouse gas emissions indicators

15. Adapt to the effects of climate change

- ☐ Conduct a vulnerability assessment evaluating potential threats to the public, environmental and economic health of the city
- ☐ Develop a strategic adaptation plan to mitigate the potential negative effects of climate change

CONCLUSION

This Climate Action Plan has laid out 15 measures to be accomplished by the end of 2015 to reduce emissions 15 percent below 1990 levels. Santa Monica's demonstrated success and ambitious plans for a more sustainable future will ensure that the City meets and exceeds its target with momentum to take action beyond 2015.

Setting goals and achieving targets relies on a willingness to consistently monitor progress and evaluate effectiveness. While the programs and policies detailed in this document are projected to collectively achieve the City's greenhouse gas reduction target by 2015, their success remains contingent on a variety of factors like funding, degree of implementation and community participation. Monitoring the outcomes of these activities, in addition to conducting periodic inventories, will enable the City to reflect upon and adjust its approach effectively.

Santa Monica will continue to engage the community by providing educational workshops and rebates, greening local businesses, hosting community events, promoting a local economy and establishing progressive policies. A fully engaged community is the key to addressing climate change.

Reducing greenhouse gases and becoming more sustainable is not a singular effort, nor will it happen quickly. As new technologies develop and as we learn more about our impact and our ability to reduce it, we will be able to make choices that will not only limit carbon emissions but improve our quality of life.

While governmental agencies can plan for tomorrow, as individuals we can act today. Our choices to be healthier, more active, and less dependent on fossil fuel technology will be the deciding factor in our ability to avoid a climate catastrophe and ensure a sustainable future.

Take action.



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City of Santa Monica

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CLIMATE ACTION PLAN

15 Measures to Reduce Emissions 15% by 2015



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